## What is claimed is:

1. An apparatus for cooling, a liquid in a portable container comprising:

a housing, said housing having a top end and a bottom end, said bottom end
adapted to attach to said portable container;

a can of compressed gas within said housing, said can having a release valve to expel said compressed gas; and,

a heat exchanger around an exterior surface of said can, said heat exchanger adapted to absorb heat from a warm liquid.

- 2. An apparatus according to claim 1 wherein said housing is a hollow cylinder.
- 3. An apparatus according to claim 1 wherein said top end of said housing has a bevel for pouring and drinking liquid from said container.
- 4. An apparatus according to claim 1 wherein said bottom end of said housing is threaded.
- 5. An apparatus according to claim 1 wherein said bottom end of said housing is rubber.
- 6. An apparatus according to claim 1 wherein said heat exchanger is a plurality of fins.
  - 7. An apparatus according to claim 6 wherein said fins are disc-shaped.
  - 8. An apparatus according to claim 1 wherein said heat exchanger is a porous

mesh of metal.

- 9. An apparatus according to claim 1 wherein said heat exchanger is made out of aluminum.
- 10. An apparatus according to claim 1 wherein said heat exchanger is made out of copper.
- 11. An apparatus according to claim 1 wherein said portable container is a canteen.
- 12. An apparatus according to claim 1 wherein said portable container is a hydration system.
- 13. An apparatus according to claim 1 wherein said portable container is an open container.
- 14. An apparatus for cooling a liquid in a portable container comprising:

  a compressor, said compressor residing on a sidewall of said container;

  a length of tubing wrapping around said container, said tubing housing a refrigerant, said tubing being connected to said compressor; and

an expansion chamber, said expansion chamber receiving refrigerant from said tubing from said compressor, said expansion chamber having a plurality of heat exchangers to cool said liquid in said container.

- 15. An apparatus according to claim 14 wherein said compressor is powered by rotation of a crank.
  - 16. An apparatus according to claim 14 wherein said compressor is battery

powered.

- 17. An apparatus according to claim 14 wherein said compressor is a Sterling engine.
- 18. An apparatus according to claim 14 wherein said refrigerant is carbon dioxide.
- 19. An apparatus according to claim 14 wherein said refrigerant is a hydroflurocarbon.